



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0074; Product Identifier 2017-NM-148-AD; Amendment 39-19309; AD 2018-12-05]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports of cracks found in the rear spar web and lower chord on the left and right wings. This AD requires repetitive detailed inspections for cracking of the rear spar web and lower chord, and applicable on-condition actions. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600

Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0074.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0074; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Payman Soltani, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: [payman.soltani@faa.gov](mailto:payman.soltani@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 737-100, -200, -200C,

-300, -400, and -500 series airplanes. The NPRM published in the Federal Register on February 9, 2018 (83 FR 5743). The NPRM was prompted by reports of cracks found in the rear spar web and lower chord on the left and right wings. The NPRM proposed to require repetitive detailed inspections for cracking of the rear spar web and lower chord, and applicable on-condition actions.

We are issuing this AD to address cracks in the rear spar of the left and right wing between wing buttock line (WBL) 91 and WBL 155, which could lead to the inability of a principal structural element to sustain required flight loads and adversely affect the structural integrity of the airplane.

#### **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

#### **Support for the NPRM**

The Boeing Company stated its support for the NPRM.

#### **Request to Require the Same Grace Period Regardless of Inspection Method**

Southwest Airlines (Southwest), requested that we revise paragraph (h) of the proposed AD, which refers to the "Compliance" section of Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017, regarding the different compliance times for the two inspection methods given in Table 1 of the "Compliance" section for Group 2 airplanes. Southwest stated that the planned inspection method should have no bearing on the timing of the inspection, and therefore the compliance times should be the

same for both options. They did not specify which of the two compliance times they would favor.

We acknowledge the commenter's request. While the compliance times for inspections are not normally dependent on the planned inspection method, in this case, the initial compliance times were adjusted to account for differences in the probability of detection using a visual inspection versus an eddy current inspection. Because an eddy current inspection is more capable of detecting smaller cracks than a visual inspection, the initial compliance time was shortened for those airplanes that are inspected using the visual inspection option. We have not changed this AD in this regard.

#### **Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that the installation of winglets using Supplemental Type Certificate (STC) ST01219SE does not affect the actions specified in the NPRM.

We agree with the commenter. We have redesignated paragraph (c) of the proposed AD as paragraph (c)(1) of this AD and added paragraph (c)(2) to this AD to state that installation of STC ST01219SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

#### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the

changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

#### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017. This service information describes procedures for repetitive detailed or surface High Frequency Eddy Current (HFEC) inspections for cracking of the rear spar web and lower chord, and applicable on-condition actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Costs of Compliance**

We estimate that this AD affects 160 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

##### **Estimated costs for required actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	Up to 22 work-hours X \$85 per hour = up to \$1,870 per inspection cycle	\$0	Up to \$1,870 per inspection cycle	Up to \$299,200 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-12-05 The Boeing Company:** Amendment 39-19309; Docket No. FAA-2018-0074; Product Identifier 2017-NM-148-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks found in the rear spar web and lower chord on the left and right wings. We are issuing this AD to detect and correct cracks in the rear spar of the left and right wing between wing buttock line (WBL) 91 and WBL 155, which could lead to the inability of a principal structural element to sustain required flight loads and adversely affect the structural integrity of the airplane.



**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions for Group 1 Airplanes**

For airplanes identified as Group 1 in Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017: Within 120 days after the effective date of this AD, inspect the airplane and do all applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(h) Required Actions for Group 2 Airplanes**

For airplanes identified as Group 2 in Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017: Except as required by paragraph (i) of this AD, at the applicable times specified in the “Compliance” section of Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017.

Note 1 to paragraph (h) of this AD: Guidance for accomplishing the actions required by this AD is included in Boeing Alert Service Bulletin 737-57A1337, dated September 14, 2017, which is referred to in Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017.

**(i) Exceptions to Service Information Specifications**

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017, uses the phrase “the original issue date of Requirements Bulletin 737-57A1337 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017, specifies contacting Boeing, this AD requires repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(k) Related Information**

(1) For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount

Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210;  
email: payman.soltani@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (1)(3) and (1)(4) of this AD.

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 737-57A1337 RB, dated September 14, 2017.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on May 31, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2018-12279 Filed: 6/7/2018 8:45 am; Publication Date: 6/8/2018]